

**CONFIDENTIAL****ASSEMBLY OF MARK 3 DELAY**

1. Remove primer holder from end of unit.
2. Insert spring and striker body into large chamber.
3. Compress spring so that the small end of the striker body protrudes through hole between chambers in the body of the unit.
4. Insert striker screw into screw disc and screw hand-tight into end of striker body.
5. Screw retainer into small end of the unit body and tighten with a small screw driver.
6. Place retaining disc into the large end of the body. It will seat on the small shoulder of the relief for the 11 mm threads.
7. Place into primer holder and screw primer holder back into body. In actual use the primer will be potted using NRC lacquer into the holder, and the open end of the primer will be protected by a piece of aluminum foil potted into primer holder.
8. The chosen capsule can be screwed into the 9 mm threads in the body loosely until ready for activation. Activation is achieved by simply screwing the capsule into the unit finger tight.
9. After the unit has fired, the retainer should be screwed out and the body thoroughly cleaned with acetone. For experimental purposes it can then be reused.
10. Average firing times are as follows: (minutes)

	Upright Position			Inverted Position		
	104°F	77°F	41°F	104°F	77°F	41°F
Red Capsule	123.6	199.3	336	155.9	198.1	312
Yellow Capsule	325.1	606.7	1246	378.7	697.5	1679

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**CONFIDENTIAL**RED CAPSULE*menclat*Upright Position

	<u>104°F</u>	<u>77°F</u>	<u>41°F</u>
	108 min.	180 min.	295 min.
	110 "	180 "	305 "
	118 "	186 "	310 "
	120 "	188 "	385 "
	120 "	197 "	385 "
	126 "	205 "	
	127 "	208 "	
	130 "	215 "	
	137 "	216 "	
	140 "	218 "	
Mean	123.6 min.	199.3 min.	336 min.
Median	123.0 "	201.0 "	
Std. Deviation	10.5 "	15.0 "	
Coefficient of Variation	8.5%	7.5%	

Inverted Position

	<u>104°F</u>	<u>77°F</u>	<u>41°F</u>
	129 min.	179 min.	305 min.
	140 "	184 "	305 "
	141 "	188 "	310 "
	142 "	196 "	315 "
	145 "	200 "	325 "
	147 "	202 "	
	162 "	203 "	
	173 "	205 "	
	190 "	209 "	
	190 "	215 "	
Mean	155.9 min.	198.1 min.	312 min.
Median	146.0 "	201.0 "	
Std. Deviation	21.7 "	11.3 "	
Coefficient of Variation	13.3%	5.7 %	

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**CONFIDENTIAL****YELLOW CAPSULE****Upright Position**

	<u>104°F</u>	<u>77°F</u>	<u>41°F</u>
	260 min.	515 min.	1185 min.
	275 "	540 "	1235 "
	295 "	545 "	1245 "
	300 "	554 "	1282 "
	320 "	603 "	1283 "
	329 "	615 "	
	340 "	630 "	
	370 "	670 "	
	377 "	690 "	
	385 "	705 "	
Mean	325.1 min.	606.7 min.	1246 min.
Median	224.5 "	611.0 "	
Std. Deviation	44.6 "	67.2 "	
Coefficient of Variation	13.7%	11.1%	

**Inverted Position**

	<u>104°F</u>	<u>77°F</u>	<u>41°F</u>
	315 min.	565 min.	1585 min.
	335 "	605 "	1655 "
	335 "	620 "	1670 "
	350 "	635 "	1730 "
	380 "	645 "	1755 "
	380 "	660 "	
	395 "	730 "	
	420 "	825 "	
	425 "	830 "	
	452 "	860 "	
Mean	378.7 min.	697.5 min.	1679 min.
Median	380.0 "	652.5 "	
Std. Deviation	41.5 "	106 "	
Coefficient of Variation	11.0%	15.2%	

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*ED-143B*

**SUPPLEMENTAL REPORT NO. 1**

**ON**

**TESTING PROGRAM**

**R. O. 10**

**29 OCTOBER 1957**

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Upon termination of the testing program, ten tests were still in progress. These tests were of the capsules using a mixture of 99% dimethyl phthalate and 1% n-butyl lactate at 41° F.

Five tests were with the Mark II delay prototypes in the upright position and five were in the inverted position. To date, the following results have been obtained:

Upright Position	533 days
	560 "
	869 "
Inverted Position	641 days
	660 "
	868 "
	934 "

The remaining tests will be reported when complete.

No additional costs were incurred during these tests.